

60/04

14

Date: Wednesday, 3/26/2008 12:49:42 PM  
User: Kim Johnston

# Process Sheet

Customer :	CU-DAR001 Dart Helicopters Services	Drawing Name :	1-MAN 3-POINT LH SHOULDER HARNESS KIT		
Job Number :	38207				
Estimate Number :	13079				
P.O. Number :		Part Number :	D412702051B		
This Issue :	3/26/2008	S.O. No. :	Drawing Number :	DSI 9397	
Prsht Rev. :	NC		Project Number :	N/A	
First Issue :	/ /	Type :	Drawing Revision :	A	
Previous Run :	36099		Material :		
Written By :		Due Date :	4/2/2008	Qty:	1 Um: Each
Checked & Approved By :	<u>08 03 26</u>				
Comment :	Est Rev:A new issue ECN 1070 07-12-03 DD verified by:ec				

## Additional Product

Job Number:



Seq. #:

Machine Or Operation:

Description :

1.0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Photocopy bluefile & type labels per PPP D412-702-051B CHG001

*08/04/02 08.03.26*

2.0

D412702107B

HARNESS ASSEMBLY



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

HARNESS ASSEMBLY  
BATCH: 38226

3.0

D35421

BRACKET



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

BRACKET  
Batch: 34221

4.0

D35713

GUIDE



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

GUIDE  
Batch: 31869

5.0

D3610041

BRACKET



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

BRACKET  
Batch: 338087

*08/04/02 (1)*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

Date: Wednesday, 3/26/2008 12:49:42 PM  
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## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 1-MAN 3-POINT LH SHOULDER HARNESS KIT

Job Number: 38207

Part Number: D412702051B

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

D36181

CAP



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

CAP

Batch: 32424

7.0

AN410A

Bolt



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Bolt

Batch: M105472

8.0

AN444A

Bolt



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Bolt

Batch: M104806

9.0

MS24693S274

Screw



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Screw

Batch: M104214

10.0

AN960JD416

Washer



Comment: Qty.: 3.0000 Each(s)/Unit Total : 3.0000 Each(s)

Washer

Batch: M106780

11.0

AN960JD416L

Washer



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Washer

Batch: M106785

12.0

MS21042L4

Nut



Comment: Qty.: 3.0000 Each(s)/Unit Total : 3.0000 Each(s)

Nut

Batch: M106825

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Wednesday, 3/26/2008 12:49:42 PM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 1-MAN 3-POINT LH SHOULDER HARNESS KIT

Job Number: 38207

Part Number: D412702051B

Job Number:



Seq. #:

Machine Or Operation:

Description :

13.0

QC4

INSPECT 100% KITS FOR COMPLETENESS



Comment: INSPECT 100% KITS FOR COMPLETENESS

JS 08/04/02 (XU)

14.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP D412-702-051B CHG001

Location:

PPP Rev:

Rev B

JS 08/04/02 (XU)

15.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

08.04.02 (XU)

Job Completion



mf

08-04-02

h

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# DART SERVICE INSTRUCTION

## TO AMEND INSTALLATION INSTRUCTIONS IIN-D412-702 REV. E & INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D412-702 REV. 3

REF TC STC SH04-7 & FAA STC SR01997NY

D412-702-051A/-051B/-052A/-052B 1-man 3-point shoulder harness kits are available for the outboard seats of the 5-man forward facing bench in Bell 205/212/214/412 model aircraft. Install as follows. The parts list is provided on sheet 3. The D412-702-051A/-051B/-052A/-052B kits should be maintained per ICA-D412-702 as applicable.

1) Remove existing lap belt and/or shoulder harness installations from the outboard seats of the 5-man forward facing bench per the applicable maintenance manual or ICA. If the Dart D412-702-011/-021/-013/-023 shoulder harness kits are already installed, do not remove the D3195-043 brackets from the stanchion posts. Refer to Detail B of Figure 1. Ensure that the D3268-1 placard is not removed from the aircraft.

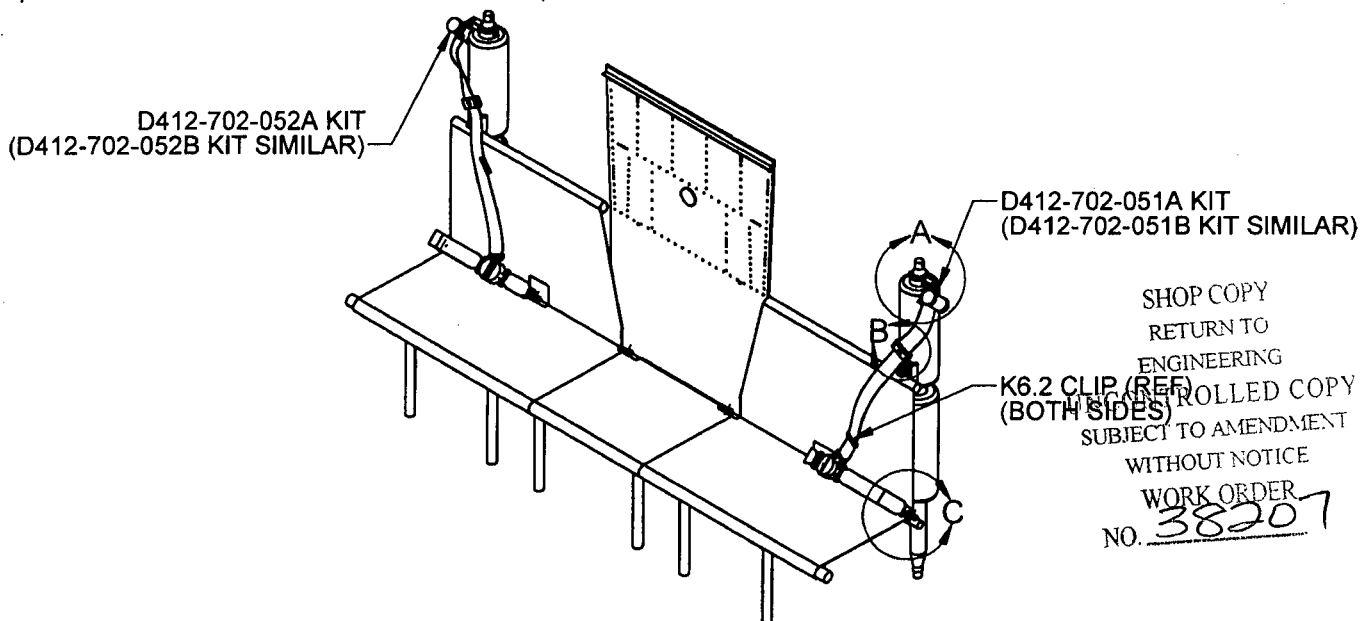
2) Disconnect the tops of the aircraft stanchion posts from the aircraft roof per the Aircraft Maintenance Manual. It may be necessary to disconnect the bases of the posts as well.

3) Position a D3542-1 bracket over the top of each post as shown in Figure 1, Detail A. Install the D412-702-107A/-107B harness assembly on the bracket on the LH stanchion post at a forward angle of 45° using the hardware shown in Detail A. Install the D412-702-109A/-109B on the bracket on the RH stanchion post at a forward angle of 45°.

4) Remove the OEM 205-070-742-001 blocks from behind the OEM 205-070-743-001 supports and discard the fasteners. Install the D3610-041 bracket and D3571-3 guide with the D3618-1 cap on each post as shown in Detail B. Trim the D3618-1 cap as needed to fit. Torque the AN4 bolts to 50-70 in-lbs (5.6-7.9 N-m).

5) Feed the shoulder belts through the guides so that the K6.2 clips are between the guides and the buckles as shown in Figure 1. Clip the lap belts and buckles onto the OEM seat belt rings as shown in Detail C and engage the belts in the buckles. Orient the harness assemblies and the D3571 guides so that the shoulder belts have a straight path to the buckles as shown in Figure 1. Torque the #10 fasteners to 20-25 in-lbs (2.3-2.8 N-m). Ensure that the that the D3569-1/-2/-3 decals on the buckles face outward.

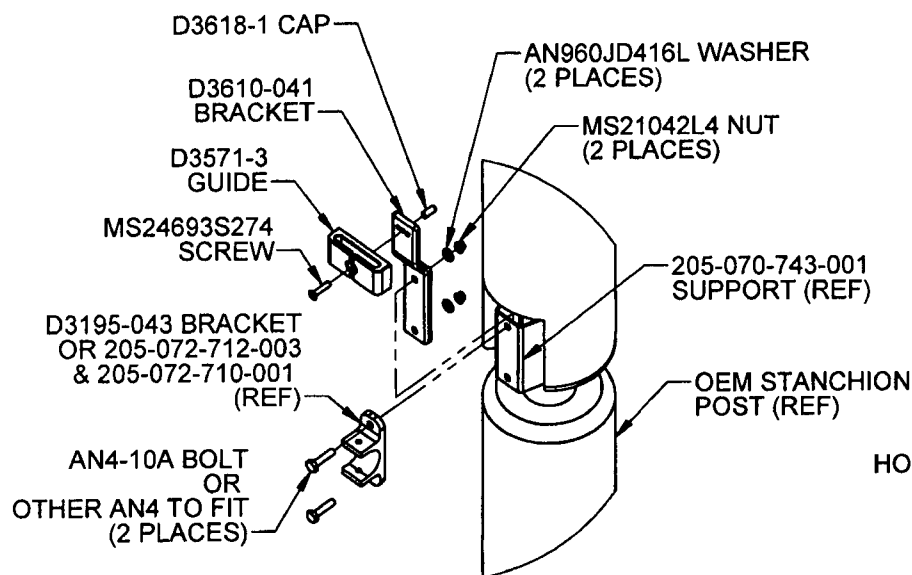
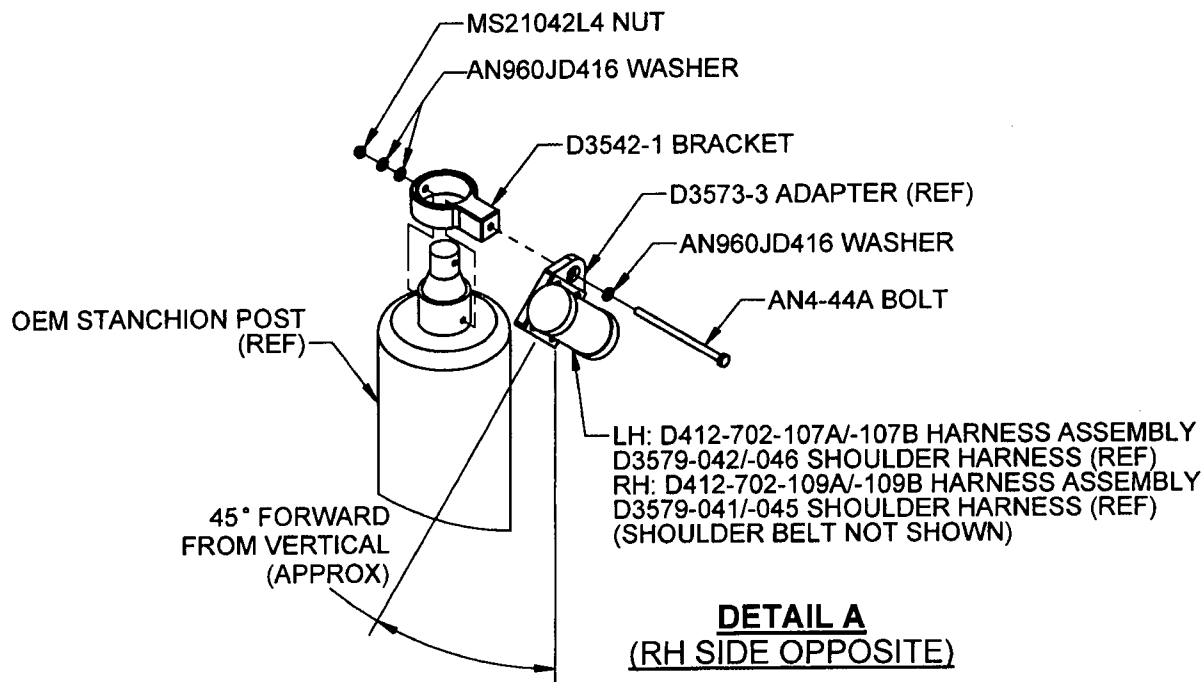
6) At the customer's option, secure the end fittings of the lap belts using MS20995C41 lockwire per AC43.13-1B Chapter 7 Section 7 or install an MS24665 cotter pin.



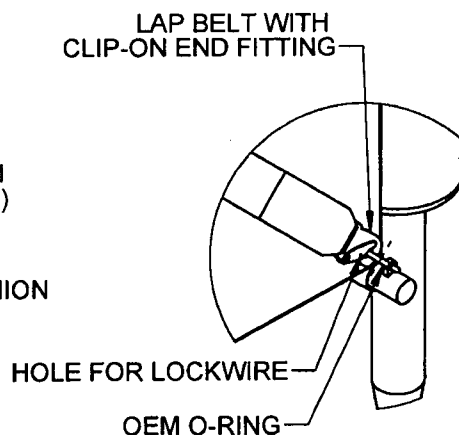
**FIGURE 1. D412-702-051A/-051B/-052A/-052B INSTALLATION**

CANADA DEPARTMENT OF TRANSPORT AIRCRAFT CERTIFICATION BRANCH DAO # 01-O-01	
<b>APPROVED</b>	
BY:	<i>[Signature]</i>
	D. SHEPHERD (DE # 02)
DATE:	07.11.21
CERT. NO.:	SH04-7
ISSUE NO.:	3

A	NEW ISSUE	LE	07.11.21
REV.	DESCRIPTION	BY	DATE
DESIGN	<i>[Signature]</i>	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	<i>[Signature]</i>		
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9397	SHEET 1 OF 3
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	<b>SHOULDER HARNESS KITS</b>	NTS
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WITHOUT NOTICE  
WORK ORDER  
NO. 38207

CANADA  
DEPARTMENT OF TRANSPORT  
AIRCRAFT CERTIFICATION  
BRANCH  
DAO # 01-O-01

APPROVED  
BY: *[Signature]*  
D. SHEPHERD (DE # 02)

DATE: 07.11.21  
CERT. NO.: SH04-7  
ISSUE NO.: 3

DESIGN	LE	<b>DART AEROSPACE LTD</b>	
DRAWN	LE	HAWKESBURY, ONTARIO, CANADA	
CHECKED	LE	DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9397	SHEET 2 OF 3
APPROVED	NO	TITLE	SCALE
DE APPR.	SH	SHOULDER HARNESS KITS	NTS
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QTY -051A	QTY -052A	QTY -051B	QTY -052B	Part Number	Description
X				D412-702-051A	1-Man 3-Point LH Shoulder Harness Kit
	X			D412-702-052A	1-Man 3-Point RH Shoulder Harness Kit
		X		D412-702-051B	1-Man 3-Point LH Shoulder Harness Kit
			X	D412-702-052B	1-Man 3-Point RH Shoulder Harness Kit
1				D412-702-107A	HARNESS ASSEMBLY
1*				D3573-3	ADAPTER
1*				D3579-042	SHOULDER HARNESS
1*				K6.2	CLIP
4*				MS24693S272	SCREW
4*				AN960JD10LL	WASHER
4*				MS21042L3	NUT
	1			D412-702-109A	HARNESS ASSEMBLY
	1*			D3573-3	ADAPTER
	1*			D3579-041	SHOULDER HARNESS
	1*			K6.2	CLIP
	4*			MS24693S272	SCREW
	4*			AN960JD10LL	WASHER
	4*			MS21042L3	NUT
		1		D412-702-107B	HARNESS ASSEMBLY
		1*		D3573-3	ADAPTER
		1*		D3579-046	SHOULDER HARNESS
		1*		K6.2	CLIP
		4*		MS24693S272	SCREW
		4*		AN960JD10LL	WASHER
		4*		MS21042L3	NUT
			1	D412-702-109B	HARNESS ASSEMBLY
			1*	D3573-3	ADAPTER
			1*	D3579-045	SHOULDER HARNESS
			1*	K6.2	CLIP
			4*	MS24693S272	SCREW
			4*	AN960JD10LL	WASHER
			4*	MS21042L3	NUT
1	1	1	1	D3542-1	BRACKET
1	1	1	1	D3571-3	GUIDE
1	1	1	1	D3610-041	BRACKET
1	1	1	1	D3618-1	CAP
2	2	2	2	AN4-10A	BOLT
1	1	1	1	AN4-44A	BOLT
1	1	1	1	MS24693S274	SCREW
3	3	3	3	AN960JD416	WASHER
2	2	2	2	AN960JD416L	WASHER
3	3	3	3	MS21042L4	NUT

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\*Denotes that part is included with assembly above

CANADA  
DEPARTMENT OF TRANSPORT  
AIRCRAFT CERTIFICATION  
BRANCH  
DAO # 01-O-01

APPROVED  
BY:   
D. SHEPHERD (DE # 02)

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DESIGN	LE	<b>DART AEROSPACE LTD</b>	
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MFG. APPR.	N/A	DSI 9397	SHEET 3 OF 3
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